

layout. Sample pamphlet text and layout may be obtained by contacting the Commandant. This pamphlet may be combined with the manual required by § 160.076-37 if PFD selection and warning information is provided on the PFD packaging in such a way that it remains visible until purchase.

§ 160.076-37 Owner's manual.

(a) *General.* The manufacturer must provide an owner's manual with each inflatable PFD sold or offered for sale. A draft of the manual for each model must be submitted for approval in accordance with § 160.076-13.

(b) *Manual contents.* Each owner's manual must contain the information specified in section 11 of UL 1180, and, if the PFD is conditionally approved, an explanation of the meaning of, and reasons for, the approval conditions.

[CGD 94-110, 60 FR 32848, June 23, 1995, as amended by CGD 94-110, 61 FR 13947, Mar. 28, 1996]

§ 160.076-39 Marking.

(a) *General.* Each inflatable PFD must be marked as specified in UL 1180 section 10 and this section.

(b) PFD Type. Based on its approval certificate, each PFD must be marked as follows—

- (1) "Type I PFD";
- (2) "Type II PFD";
- (3) "Type III PFD"; or
- (4) "Type V [*insert exact text of description noted on the approval certificate, if any*] PFD—[*insert text required by paragraph (c) of this section*]. This PFD provides in-water performance equivalent to a Type [*insert performance type criteria noted on the approval certificate*] PFD."

(c) A Type V, conditionally approved, inflatable PFD must be marked with the approval conditions specified on the approval certificate.

(d) *Additional markings.* (1) Unless otherwise noted on the approval certificate, each inflatable PFD must be marked with the following:

(i) "NOT APPROVED TO MEET CARRIAGE REQUIREMENTS ON COMMERCIAL VESSELS."

(ii) The unique model, style, or part number of the inflation mechanism approved for use on the PFD.

(2) [Reserved]

(e) *Inflation mechanisms.* Each manual, automatic, or manual-auto inflation mechanism must be permanently marked with its unique model number.

[CGD 94-110, 60 FR 32848, June 23, 1995, as amended by CGD 94-110, 61 FR 13947, Mar. 28, 1996]

Subpart 160.077—Hybrid Inflatable Personal Flotation Devices

SOURCE: CGD 78-174, 50 FR 33928, Aug. 22, 1985, unless otherwise noted.

§ 160.077-1 Scope.

(a) This specification contains requirements for approving hybrid inflatable personal flotation devices (hybrid PFDs).

(b) Under this chapter and 33 CFR part 175, certain commercial vessels and recreational boats may carry Type I, II, or III hybrid PFDs to meet carriage requirements. Type V hybrid PFDs may be substituted for other required PFDs if they are worn under conditions prescribed in their manual as required by § 160.077-29 and on their marking as prescribed in § 160.077-31. For recreational boats or boaters involved in a special activity, hybrid PFD approval may also be limited to that activity.

(c) Unless approved as a Type I SOLAS Lifejacket, a hybrid PFD on an inspected commercial vessel will be approved only—

- (1) As work vest; or
- (2) For the special purpose stated on the approval certificate and PFD marking.

(d) A hybrid PFD may be approved for adults, weighing over 40 kg (90 lb); youths, weighing 23-40 kg (50-90 lb); small children, weighing 14-23 kg (30-50 lb); or for the size range of persons for which the design has been tested, as indicated on the PFD's label.

(e) This specification also contains requirements for—

(1) Manufacturers and sellers of recreational hybrid PFD's to provide an information pamphlet and owner's manual with each PFD; and

(2) Manufacturers of commercial hybrid PFD's to provide a user's manual.

[CGD 78-174, 50 FR 33928, Aug. 22, 1985, as amended by CGD 78-174, 60 FR 2486, Jan. 9, 1995]

§ 160.077-2 Definitions.

(a) *Commandant* means the Chief of the Lifesaving and Fire Safety Division, Marine Safety and Environmental Protection. Address: Commandant (G-MSE-4), U.S. Coast Guard Headquarters, 2100 Second Street SW., Washington, DC 20593-0001.

(b) *Commercial hybrid PFD* means a hybrid PFD approved for use on commercial vessels identified on the PFD label.

(c) *First quality workmanship* means construction which is free from any defect materially affecting appearance or serviceability.

(d) *Hybrid PFD* means a personal flotation device that has at least one inflation chamber in combination with inherently buoyant material.

(e) *Inflation medium* means any solid, liquid, or gas, that, when activated, provides inflation for buoyancy.

(f) *Inspector* means an independent laboratory representative assigned to perform duties described in § 160.077-23.

(g) *PFD* means a personal flotation device of a type approved under this subpart.

(h) *Recreational hybrid PFD* means a hybrid PFD approved for use on a recreational boat as defined in 33 CFR 175.3.

(i) [Reserved]

(j) *Reference vest* means a model AK-1, adult PFD; model CKM-1, child medium PFD; or model CKS-2, child small PFD, meeting the requirements of subpart 160.047 of this chapter, except that, in lieu of the weight and displacement values prescribed in Tables 160.047-4(c)(2) and 160.047-4(c)(4), each insert must have the minimum weight of kapok and displacement as shown in Table 160.077-2(j). To achieve the specified volume displacement, front and back insert pad coverings may be larger than the dimensions prescribed by § 160.047-1(b) and the width of the front fabric envelope and height of the back fabric envelope may be increased to accommodate a circumference no greater than 1/4" larger than the filled insert circumference. As an alternative, unicellular plastic foam inserts of the specified displacement and of an equivalent shape, as accepted by the Commandant, may be substituted for kapok inserts.

TABLE 160.077-2(j)—REFERENCE VEST MINIMUM KAPOK WEIGHT AND VOLUME DISPLACEMENT

Reference PFD type	Front insert (2 each)		Back insert	
	Minimum kapok weight g (oz)	Volume displacement N (lb)	Minimum kapok weight g (oz)	Volume displacement N (lb)
Devices for adults, weighing over 40 kg (90 lb):				
Type II, III, and V Recreational	234 (8.25)	40±1 (9.0±0.25)	156 (5.5)	27±1 (6.0±0.25)
Devices for youths, weighing 23-40 kg (50-90 lb):				
Type I	184 (6.5)	31±1 (7.0±0.25)	170 (6.0)	30±1 (6.5±0.25)
Type II, III, and V ¹	156 (5.5)	26±1 (5.75±0.25)	149 (5.25)	24±1 (5.5±0.125)
Devices for small children, weighing 14-23 kg (30-50 lb):				
Type I	128 (4.5)	21±1 (4.75±0.25)	156 (5.5)	30±1 (6.5±0.25)
Type II	100 (3.5)	17±1 (3.75±0.25)	135 (4.75)	22±1 (5.0±0.25)

¹ Both Recreational and Commercial.

(k) *Second stage donning* means adjustments or steps necessary to make a PFD provide its intended flotation characteristics after the device has been properly donned and then inflated.

(l) *SOLAS lifejacket*, in the case of a hybrid inflatable PFD, means a PFD

approved as meeting the requirements for lifejackets in the 1983 Amendments to the International Convention for the Safety of Life at Sea, 1974 (SOLAS 74/